**How can I use these numbers?**

Whether building a model of an atom or trying to determine how an atom will react with another, we need to know how many particles it contains. The atomic number is helpful because it tells us how many protons to include in the nucleus and how many electrons are orbiting the nucleus, but what about neutrons?

Neutrons are found in the nucleus with protons. If the atomic mass tells us the sum of the particles in the nucleus and we know how many of those particles are protons (atomic number), then we can subtract the atomic number from the atomic mass and be left with the number of neutrons.

For example:

***The atomic number of sodium is 11, so…***

Protons = 11

Electrons = 11

***The atomic mass is 23, so…***

23 – 11 = 12

Neutrons = 12

\*\*Building an atom will be easy now that you know how to determine the correct number of particles in each atom.

**3.**

**1.**

This represents the tile for sodium found on the periodic table of elements

This is the **Atomic Mass.**

The atomic mass tells you the sum of the particles (protons and neutrons) in the nucleus.

This is the **Atomic Number.**

The atomic number tells you how many protons are in the nucleus *and* how many electrons can be found in the electron cloud.

**2.**

Both of the numbers in this tile provide valuable information about the structure of a sodium atom

**23**

Sodium

Na

**11**